



Autodesk Moldflow Material Data Classifier

The Moldflow Data Classifier enables you to make confidential specific material properties. When you classify a material property as confidential, the values are read by the Moldflow solvers and used in the calculations, but appear as 'Confidential' in the Moldflow software.

There are two lists of material properties in the Moldflow Data Classifier:

- A shorter list of properties that can be made confidential in the Moldflow Commercial Database.
- A longer list of properties that you can make confidential in a database that you provide directly to your customer.

Properties that may be made confidential in the Moldflow Commercial Database

Filler/Fiber:

- Filler data
- Filler length information
- Fiber orientation calculation (Midplane and Dual Domain): Coefficient of interaction (C_i)
- Fiber orientation calculation (Midplane and Dual Domain): Thickness moment of interaction coefficient (D_z)
- Fiber orientation calculation (Midplane and Dual Domain): Reduced Strain Closure factor
- Fiber orientation calculation (Midplane and Dual Domain): Parameters for long fiber ARD model
- Fiber orientation calculation (3D): Coefficient of interaction (C_i)
- Fiber orientation calculation (3D): Reduced Strain Closure factor
- Fiber orientation calculation (3D): Parameters for long fiber ARD model

Stress-Strain (Tension):

- Stress-Strain (Tension)
- Ramberg-Osgood (Tension) – Isotropic
- Ramberg-Osgood (Tension) - Anisotropic

Stress-Strain (Compression):

- Stress-Strain (Compression)
- Stress-Strain (Compression) - Anisotropic

Additional properties that may be made confidential, but not in the Moldflow Commercial Database

Rheological:

- Cross-WLF viscosity model
- Moldflow second order viscosity model
- Matrix model viscosity data points
- Juncture loss method coefficients
- Extension viscosity model coefficients

Thermal:

- Specific heat data
- Thermal conductivity data

pVT:

- 2-domain modified Tait pVT model coefficients

Mechanical:

- Mechanical properties data
- Transversely isotropic coefficient of thermal expansion (CTE) data
- 7 Matrix properties: Mechanical properties data
- 7 Matrix properties: Matrix coefficient of thermal expansion (CTE) data
- Weld Line Strength

Microcellular:

- Nitrogen (N₂) foaming gas: Surface tension (Guggenheim model) parameters
- Nitrogen (N₂) foaming gas: Viscosity coefficients for gas
- Nitrogen (N₂) foaming gas: Solubility coefficients for gas
- Nitrogen (N₂) foaming gas: Diffusion coefficients for gas
- Nitrogen (N₂) foaming gas: Fitted Classical Nucleation Model parameters
- Carbon dioxide (CO₂) foaming gas: Surface tension (Guggenheim model) parameters
- Carbon dioxide (CO₂) foaming gas: Viscosity coefficients for gas
- Carbon dioxide (CO₂) foaming gas: Solubility coefficients for gas
- Carbon dioxide (CO₂) foaming gas: Diffusion coefficients for gas

- Carbon dioxide (CO₂) foaming gas: Fitted Classical Nucleation Model parameters
- Custom foaming gas: Molecular weight
- Custom foaming gas: Surface tension (Guggenheim model) parameters
- Custom foaming gas: Viscosity coefficients for gas
- Custom foaming gas: Solubility coefficients for gas
- Custom foaming gas: Diffusion coefficients for gas
- Custom foaming gas: Fitted Classical Nucleation Model parameters

Optical:

- Refractive index for unoriented material
- Stress-Optical Coefficient C1
- Viscoelastic Retardation Spectrum at T_{ref}
- Temperature Shift model: Viscoelastic WLF model
- Temperature Shift model: T_{ref}
- Temperature Shift model: Temperature shifts
- Spectrum correction factor

Crystallization Morphology:

- Free energy coefficients
- Index (q_idx) for free energy
- Non-linear spring parameter (bFENE) for FENEP
- Parameter for Shish (gL)
- Parameter for shrinkage anisotropy (GL2)
- Viscosity modifying coefficients
- Crystallization effect on specific heat (Cpcef)
- Fiber effect on crystallization (cN)
- Ultimate crystallinity (X_Inf)
- Quiescent nuclei number coefficients
- Equilibrium melting temperature (T_{eq})
- Growth rate (Hoffmann-Lauritzen) coefficients
- Glass transition temperature (Tg)
- Relaxation time at reference temperature (T_{rlx})